

WHAT IS CLAIMED IS:

1. A method for processing image information, comprising:

receiving light comprising image information;

5 performing a first optical transform on the light to yield a first optically transformed light;

performing a second optical transform on the light to yield a second optically transformed light;

10 generating a first metric in accordance with the first optically transformed light;

generating a second metric in accordance with the second optically transformed light;

processing the first metric and the second metric to yield a processed metric; and

15 performing an inverse optical transform on the processed metric to process the image information of the light.

2. The method of Claim 1, wherein the first
20 optical transform is substantially similar to the second optical transform.

3. The method of Claim 1, wherein the first
25 optical transform is compatibly different from the second optical transform.

4. The method of Claim 1, wherein:

the first optical transform comprises a first Fourier transform; and

30 the second optical transform comprises a second Fourier transform.

5. The method of Claim 1, wherein processing the first metric and the second metric to yield a processed metric comprises:

5 selecting first data from the first metric;
 selecting second data from the second metric; and
 fusing the first data and the second data to yield
the processed metric.

10 6. The method of Claim 1, wherein processing the
first metric and the second metric to yield a processed
metric comprises:

 generating the processed metric in response to the
first metric and the second metric; and
 detecting a target using the processed metric.

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7. The method of Claim 1, further comprising:
generating an image from the processed metric; and
displaying the image.

8. A system for processing image information, comprising:

a plurality of optical transformers operable to receive light comprising image information, a first optical transformer operable to perform a first optical transform on the light to yield a first optically transformed light, a second optical transformer operable to perform a second optical transform on the light to yield a second optically transformed light;

a first processor operable to generate a first metric in accordance with the first optically transformed light;

a second processor operable to generate a second metric in accordance with the second optically transformed light;

an image processor operable to process the first metric and the second metric to yield a processed metric; and

an inverse optical transformer operable to perform an inverse optical transform on the processed metric to process the image information of the light.

9. The system of Claim 8, wherein the first optical transform is substantially similar to the second optical transform.

10. The system of Claim 8, wherein the first optical transform is compatibly different from the second optical transform.

11. The system of Claim 8, wherein:
the first optical transform comprises a first
Fourier transform; and
the second optical transform comprises a second
5 Fourier transform.

12. The system of Claim 8, wherein the image
processor is operable to process the first metric and the
second metric to yield a processed metric by:
10 selecting first data from the first metric;
selecting second data from the second metric; and
fusing the first data and the second data to yield
the processed metric.

13. The system of Claim 8, wherein the image
processor is operable to process the first metric and the
second metric to yield a processed metric by:
generating the processed metric in response to the
first metric and the second metric; and
20 detecting a target using the processed metric.

14. The system of Claim 8, further comprising a
display operable to:
generate an image from the processed metric; and
25 display the image.

15. A system for processing image information,
comprising:

means for receiving light comprising image
information;

5 means for performing a first optical transform on
the light to yield a first optically transformed light;

means for performing a second optical transform on
the light to yield a second optically transformed light;

10 means for generating a first metric in accordance
with the first optically transformed light;

means for generating a second metric in accordance
with the second optically transformed light;

means for processing the first metric and the second
metric to yield a processed metric; and

15 means for performing an inverse optical transform on
the processed metric to process the image information of
the light.

16. A method for processing image information, comprising:

receiving light comprising image information;

performing a first optical transform on the light to
5 yield a first optically transformed light, the first
optical transform comprising a first Fourier transform;

performing a second optical transform on the light
to yield a second optically transformed light, the second
optical transform comprising a second Fourier transform,
10 the first optical transform substantially similar to the
second optical transform or compatibly different from the
second optical transform;

generating a first metric in accordance with the
first optically transformed light;

15 generating a second metric in accordance with the
second optically transformed light;

processing the first metric and the second metric to
yield a processed metric by performing a procedure
selected from a group consisting of a first procedure and
20 a second procedure, the first procedure comprising:
selecting first data from the first metric, selecting
second data from the second metric, and fusing the first
data and the second data to yield the processed metric,
the second procedure comprising: generating the processed
25 metric in response to the first metric and the second
metric, and detecting a target using the processed
metric;

performing an inverse optical transform on the
processed metric to process the image information of the
30 light;

generating an image from the processed metric; and
displaying the image.